

RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 02/2011

INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: <input type="checkbox"/> Policy research <input type="checkbox"/> Other <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Pooled fund TPF#		Report period year: 2013 <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input checked="" type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: Performance of Pile Supported Sign Structures		
Project investigator: Andrew Boeckmann	Phone: (573) 884-7613	E-mail: boeckmanna@missouri.edu
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WisDOT contact: Kimberley Dinkins	Phone: (608) 267-2828	E-mail: KimberleyR.Dinkins@dot.wi.gov
WisDOT project ID: 0092-14-02	Other project ID:	Project start date: 8/8/2013
Original end date: 2/8/2015	Current end date: 2/8/2015	Number of extensions: 0

Project schedule status:

☒ On schedule ☐ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$99,999.00	\$11,584.67	\$11,584.67	17%	10%

Project description:

Perform a field load test and numerical modeling of two pile groups to investigate load transfer for sign foundations.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

Models of the site and pile foundations were created using Ensoft GROUP. The models were used to design the foundations (i.e. determine pile length) and to establish the load test characteristics (e.g. magnitude and point of application of load, anticipated deflections and loads, etc.). The results of the modeling were shared and discussed with Jeff Horsfall, the WisDOT technical oversight committee liaison. It is anticipated the models will be useful in the data analysis following completion of the field research. The research team has also been in communication with Boone Construction Co., the subcontractor who will construct the test foundations. Also, the research team started the literature review, focusing on design methods for pile groups subjected primarily to overturning moments.

Anticipated work next quarter:

Results of the numerical modeling performed this quarter will be used to finish designing the test foundations, particularly the pile caps. Once the design is complete, the research team will coordinate with the subcontractor to plan construction of the test foundations, which is anticipated for the end of the next quarter (Quarter 1, 2014) or the beginning of the following quarter (Quarter 2, 2014). The research team will also design and begin procuring supplies for the test instrumentation in the next quarter in advance of the field testing. The research team will also complete the literature review in the upcoming quarter.

Circumstances affecting project or budget:

Currently, work on the project is underway and is being performed consistent with the research plan and project budget.

Attach / insert Gantt chart and other project documentation

The Gantt chart from the research plan is included below. Currently the research team is working on Tasks 1 and 2. The literature review of Task 1 is nearly complete, and the research team is midway through the planning phases of the field research of Task 2. The project is on schedule, consistent with the Gantt chart.

Task	Project Month																	
	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Literature Review																		
2. Field Research																		
3. Data Analysis																		
4. Final Report																		
Draft Final Report Submitted October 31, 2014																		
WisDOT Review																		
Report Revisions & Final Submittal																		
Final Final Report Submitted January 31, 2015																		

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Staff receiving QPR: K. Dinkins	Date received: 12/31/13
Staff approving QPR:	Date approved: